

MATERIAL SAFETY DATA SHEET

B1-1

UNITED STATES METAL POWDERS, INC.

408 U.S. HIGHWAY 202
FLEMINGTON, NJ 08822

TELEPHONE: 908-782-5454

HMIS RATING:

HEALTH: 1
FLAMMABILITY: 0
REACTIVITY: 0
PERS. PROTECTION: E

SECTION I. MATERIAL IDENTIFICATION

Material Name: COPPER POWDER

Item Number: C-106, Cu-106, C-110, C-112, C-113, C-118, C-121, C-122, C-123, C-131, C-906, C-908, C-910, C-915-WA, C-400, C-TEVT, D-101, Cu 200, Cu 300 STD, Cu42/G12C, ECP-R, Cu42/G91F, SFG23, SFG24 85/325, SFM13, SFP1, SFP2, SFP3, SFP4, SFP5, SFP6, SFP8, SFP9, 44-120TM, Cu03, Cu03C, Cu04, Cu06, Cu08, Cu502, C-570, SGF-18100/350, SMF14, SFP2, M053, O53, NLD-100, copper chops, 300BP

CAS Number: 7440-50-8

Chemical Name: COPPER

SECTION II. INGREDIENTS AND EXPOSURE LIMITS

Ingredient	CAS Number	%	ACGIH TLV		OSHA PEL	
			TWA	STEL	TWA	STEL
COPPER	7440-50-8	>99	1	-	1	-

(All units = mg/m3)

SECTION III. PHYSICAL DATA

Appearance and Odor: Reddish color, odorless.

Copper

Boiling Point: 4653°F
2567°C
Evaporation Rate: N/A
Vapor Pressure: 1 mm Hg@ 2962°F (1628°C)
Specific Gravity: 8.92
Water Solubility (%): INSOLUBLE
Melting Point: 1981°F
1083°C
Vapor Density (air=1): N/A
% Volatile by Volume: N/A
Molecular Weight: 63.54

SECTION IV. FIRE AND EXPLOSION DATA

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Flash Point: N/A
Limits: LEL%: N/A
UEL%: N/A

Extinguishing media: Foam, CO2, Dry Chemical, Water fog.

SECTION V. REACTIVITY DATA

Material is stable. Hazardous polymerization will not occur.

Chemical incompatibilities: Strong alkalis, chlorates, bromates, mineral acids.

Hazardous decomposition products: Decomposition may yield hydrogen and noxious copper compounds.

SECTION VI. HEALTH HAZARD INFORMATION

Target organs: Respiratory system, nasal septum, skin, eyes, gastrointestinal, kidneys, liver, cardiovascular system.

Primary entry routes: Inhalation, ingestion, skin or eye contact.

Health effects: Copper dusts and mists are eye and mucous membrane irritants, primary skin irritants and skin sensitizers. Acute exposure may cause metallic taste and nasal ulceration and perforation. Prolonged skin contact may produce sensitization dermatitis. Exposure may result in irritation and metal-fume fever, metallic taste, and discoloration of the skin and hair. Ingestion of copper compounds may cause vomiting and collapse. Acute poisoning is characterized by hemolysis, jaundice, anuria, hypotension, and convulsions.

First Aid:

Eye contact: Immediately wash the eyes with large amounts of water, occasionally lifting the lower and upper lids. Seek medical attention immediately. Contact lenses should not be worn.

Skin contact: Flush contaminated skin with water. Get medical attention if irritation occurs/persists.

Inhalation: Move the exposed person to fresh air at once. If breathing has stopped, perform artificial respiration. Keep the affected person warm and at rest. Get medical attention as soon as possible.

Ingestion: Emergency treatment - dilute with water or milk. Remove by gastric lavage (i.e. stomach tube) unless patient is vomiting. Get medical attention as soon as possible.

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SECTION VII. SPILL, LEAK AND DISPOSAL PROCEDURES

Spill/leak procedures: Sweep gently to avoid dust cloud formation.

Disposal: Dispose of in accordance with local, state, and federal regulations.

SECTION VIII. SPECIAL PROTECTION INFORMATION

Personal protective equipment:

Goggles: Safety goggles with side shields, if needed.

Gloves: Required for those with extreme sensitivity.

Respirator: Wear supplied air respirator under confined or enclosed spaces, if needed.

Workplace considerations: Eye-wash fountain, soap and water wash station.

Ventilation: Sufficient ventilation, in volume and pattern, should be provided to keep air contamination below current applicable OSHA permissible limits.

SECTION IX. SPECIAL PRECAUTIONS

Special handling/storage: None

SECTION X. CARCINOGENITY STATUS

1. **NTP:** Not listed 2. **IARC:** Not listed 3. **OSHA:** Not listed

SECTION XI. SECTION 313 SUPPLIER NOTIFICATION

This product contains the following toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372:

<u>CAS#</u>	<u>Chemical Name</u>	<u>Percent by Weight</u>
7440-50-8	Copper	>99%

This information must be included in all MSDSs that are copied and distributed for this material.

SECTION XII. TRANSPORTATION

Domestic Ground & Air:	Not Hazardous
Hazard Warning	None

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Hazard Label	None
Ocean Freight:	Hazardous
Hazard Warning	Environmentally Hazardous Substances, Solid, n.o.s. (Copper Powder), UN3077, Marine Pollutant, Pg III
Hazard Label	Class 9 , Marine Pollutant

SECTION XIII. EMERGENCY CONTACT

CHEMTREC: (800) 424-9300 To be used "ONLY IN THE EVENT OF CHEMICAL EMERGENCIES INVOLVING A SPILL, LEAK, FIRE, EXPOSURE, OR ACCIDENT INVOLVING CHEMICALS".

DISCLAIMER OF LIABILITY

The information provided is based on data furnished to us by our suppliers or determined by us in our facilities at the time that this product was formulated. Although believed to be reliable, the information and products are intended for use by skilled persons at their own risk. Users should make their own determinations as to the suitability of the product for their particular use or purpose. NO WARRANTY OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR ANY OTHER WARRANTY IS EXPRESSED OR IS IMPLIED REGARDING THE ACCURACY OR COMPLETENESS OF THIS INFORMATION. Seller assumes no responsibility for events resulting or damages incurred from the use of this product and any obligations between seller and buyer are to be controlled by the terms and conditions contained in seller's acknowledgement forms.

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REPLACES: 11/14/06